

Abstract

The package `multifootnote` provides two groups of commands for generating footnotes which correspond to multiple numbers (or marks, if you prefer).

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Introduction

In some cases, you may wish for certain footnotes to correspond to several places in your text. The traditional solution usually involves writing the same footnote mark multiple times at the corresponding places. However, this approach makes it difficult to see at once how many times a footnote has been referred to. Therefore, the current package proposes another method: writing the footnote marks in linear order, and allowing a footnote text to match several of these marks.

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How to load it

You can simply load the current package with:

```
\usepackage[options]{multifootnote}
```

It has the following options:

`backref`

- Enable backward referencing from the footnotes.

`left align`

- Align the footnotes to the left.
- Alternative names: `left-align` | `leftalign`

`left indent` or `left indent = <length>`

- Similar to `left align`, but with an indentation `<length>`, default to be 1.5em.
- Alternative names: `left-indent` | `leftindent`

`manual`

- Use the manual version of the commands. This means that you shall need to manually specify the place where the footnote text should print (by placing the `\multifootnote` commands in the appropriate places). You should only use this option when the automatic result does not fit your need.
- Alternative names: `manual-mode` | `manual mode` | `manualmode`

How to use it

Here are two approaches for producing a footnote with multiple numbers, and in either of them, there are two commands involved.

2.1 | First approach

This approach is more or less traditional, with one command to produce the footnote mark and another the text.

- `\multifootnotemark[⟨label⟩]`
 - This command is for producing the footnote marks.
 - `⟨label⟩` cannot contain commas. However, colon “:” and semicolon “;” are allowed.
 - Alternative name: `\footnotenummer[⟨label⟩]`.
- `\multifootnotetext[⟨list of labels⟩]{⟨footnote text⟩}`
 - This command is for producing the footnote text.
 - `⟨list of labels⟩` is a list of labels that you specified with `\multifootnotemark[⟨label⟩]`, separated with commas, like this: `fn1,fn2,fn3`.
 - It should not be too far away from the corresponding marks.
 - Alternative name: `\multifootnote[⟨list of labels⟩]{⟨footnote text⟩}`.

2.2 | Second approach

This approach is considered more convenient, with one command to specify the `⟨tag⟩` while printing the footnote mark, and another to print the footnote text for this group.

- `\multifootnotetag{⟨tag⟩}` or `\multifootnotetag{⟨list of tags⟩}`
 - This command is for producing the footnote marks.
 - `⟨tag⟩` cannot contain commas. However, colon “:” and semicolon “;” are allowed.
 - `⟨list of tags⟩` is a list of tags, separated with commas, like this: `fn1tag1,fn2tag2,fn3tag3`.
 - Alternative name: `\footnotetag{⟨tag⟩}` or `\footnotetag{⟨list of tags⟩}`.
- `\multifootnotetagtext[⟨tag⟩]{⟨footnote text⟩}`
 - This command is for producing the footnote text.
 - It should not be too far away from the corresponding marks.
 - Alternative name: `\multifootnote[⟨tag⟩]{⟨footnote text⟩}`.

TIP

`\multifootnote` appears in both approaches for producing footnote text: it shall be interpreted as `\multifootnotetext` if the optional argument is a comma-separated list, and as `\multifootnotetagtext` if not. See the examples below.

ATTENTION

Notice that in the first approach, `⟨label⟩` appears as an optional argument of `\footnotenummer[⟨label⟩]` (thus square brackets); while in the second approach, `⟨tag⟩` is a mandatory argument of `\footnotetag{⟨tag⟩}` (thus curly brackets).

If you're feeling confused, don't worry. Let's now take a look at some examples.

Here are two examples of usage, with the package option “`left indent`” enabled.

3.1 | The first approach

```
Lorem ipsum\footnotenum[fn1] dolor\footnotenum[fn2] sit amet\footnotenum[fn3],
consectetur\footnotenum[fn4] adipiscing elit\footnotenum[fn5].
\multifootnote[fn1,fn2,fn5]{This is a footnote for demonstration.}
\multifootnote[fn1,fn3,fn4]{This is another footnote for demonstration.}
```

Result:

Lorem ipsum¹ dolor² sit amet³, consectetur⁴ adipiscing elit⁵.

3.2 | The second approach

```
Lorem ipsum\footnotetag{fntag1,fntag2} dolor\footnotetag{fntag1} sit amet\footnotetag{
fntag2}, consectetur\footnotetag{fntag2} adipiscing elit\footnotetag{fntag1}.
\multifootnote[fntag1]{This is a footnote for demonstration.}
\multifootnote[fntag2]{This is another footnote for demonstration.}
```

Result:

Lorem ipsum⁶ dolor⁷ sit amet⁸, consectetur⁹ adipiscing elit¹⁰.

TIP

The second approach is more recommended, as it involves fewer labels, and you shall not need to worry about the order of footnote marks in `\multifootnote`.

TIP

By default, it doesn't quite matter where you put `\multifootnote`. However, if you have enabled the package option `manual mode`, then the corresponding footnote text shall be added to the current page immediately at where you write `\multifootnote`.

ATTENTION

You should choose an approach you like and stick to it in your document. It is not recommended to use them both within the same document!

^{1,2,5} This is a footnote for demonstration.

^{1,3,4} This is another footnote for demonstration.

^{6,7,10} This is a footnote for demonstration.

^{6,8,9} This is another footnote for demonstration.

Regarding the manual version

Though the manual mode is not very convenient to be used by default (via the package option `manual`), it is still useful to be able to switch to this mode in some cases. For example, the automatic mode would not work within a box, as with the usual footnotes; also, the automatic mode would not work quite properly when the footnote text is too long to fit into the current page. In such situations, you could switch to the manual mode temporarily, with which you could write the `\multifootnote`, and thus typeset the footnote text outside the box.

To do this, you just need to add the suffix “manual” to the commands you are using, that is:

- `\multifootnotemarkmanual` and `\multifootnotetextmanual`

for the first approach, and

- `\multifootnotetagmanual` and `\multifootnotetagtextmanual`

for the second approach. Of course, we still have the alternative names to them:

- `\footnotenumbermanual` for `\multifootnotemarkmanual`,
- `\footnotetagmanual` for `\multifootnotetagmanual`, and
- `\multifootnotemanual` for `\multifootnotetextmanual` or `\multifootnotetagtextmanual`.

Acknowledgement

This package arises from a question (645330) on TeX.StackExchange. The author thanks user @Bolzano for bringing up the question of producing such footnotes.

The author thanks Ulrike Fischer for the code for fixing the broken hyperlinks generated by the first approach, and user @frougon for his kind and helpful suggestions and comments.

The author also wishes to thank user @antshar for proposing the second approach. The code is surprisingly simple but works just as fine as that of the first approach.

During the creation and improvement of this package, the author benefited from numerous helps and inspirations from TeX.StackExchange, which is greatly appreciated.

Known issues

- `multifootnote` is not compatible with the package `footnotebackref`. However, this is not a serious problem: with the package option `backref`, you should be able to get a similar result for which `footnotebackref` is supposed to achieve.
- The automatic mode cannot deal with the situation where the footnote text is printed across pages. One should consider using the manual mode in this case, as mentioned in §4. However, it might be preferable to use `endnote` instead of `footnote` when there are too many footnotes or when the intended footnote text is too long.

If you run into any issue or have ideas for improvement, feel free to discuss on:

<https://github.com/Jinwen-XU/multifootnote/issues>

or email me via ProjLib@outlook.com.